

These observations suggest that the conformation of the plant, at least when females are not active nearby, may be a determining factor in the establishment of male territories near plants which are not being visited by their females.—E. GORTON LINSLEY, *Division of Entomology and Parasitology, University of California, Berkeley 94720.*

Biological Observations on *Apiomerus crassipes* (F.) (Hemiptera: Reduviidae).—Among the more interesting aspects of the biology of predaceous insects are the site of capture and specific identity of their prey. Perhaps due to the readiness of *Apiomerus crassipes* (F.) to drop prey and take flight when approached by an observer, relatively few records of prey have been reported for the species. The available records have been summarized by Swadener and Yonke (1973, *Ann. Entomol. Soc. Amer.*, 66: 188–196), and to these should be added the record of *Ceratina sequoiae* Michener reported by Daly *et al.* (1967, *Ann. Entomol. Soc. Amer.*, 60: 1273–1282) and that of *Pogonomyrmex badius* (Latr.) recently reported by Morrill (1975, *J. Georgia Entomol. Soc.*, 10: 50–51). In total, only 12 species of 10 families of Hemiptera, Coleoptera, and Hymenoptera have been recorded to date as prey of *A. crassipes*. This paper records seven additional species in two additional families as prey of this assassin bug.

On 11 and 12 July 1962, while collecting in an old field 2 miles southwest of McLeansboro, Illinois, I took three females of *A. crassipes* from the stems of blossoming *Pycnanthemum* sp. These individuals were feeding on the following: 2 females, *Macrosiagon dimidiatum* (F.) and one male, *M. limbatum* (F.) (Coleoptera: Rhipiphoridae). I returned to the old field near McLeansboro on 14 July 1963 and observed the following for *A. crassipes* adults (all on blossoming *Pycnanthemum* spp. unless stated otherwise): two females feeding on workers of *Apis mellifera* L. (Hymenoptera: Apidae); two males feeding on males of *Sphecodes dichrous* Smith (Hymenoptera: Halictidae); female feeding on female *Halictus rubicundus* (Christ) (Halictidae); male feeding on male *Chauliognathus marginatus* (F.) (Coleoptera: Cantharidae); female of mating pair feeding on female *C. marginatus* (F.); and female feeding on female *Rhipiphorus fasciatus* (Say) (Coleoptera: Rhipiphoridae) on blossoming *Solidago* sp. I had occasion to visit the McLeansboro site again on 5 June 1965 and while there I collected a female *A. crassipes* from blossoming *Euphorbia* sp. (probably *E. corollata*), feeding on a female *Augochloropsis sumptuosa* (Smith) (Halictidae).

In Trigg County, Kentucky, on 21 July 1966 I collected a female *A. crassipes* feeding on a female *Halictus ligatus* Say, and on 15 July 1967, while collecting in a prairie remnant 1 mile northeast of Edgewood, Illinois, I collected a mating pair of *A. crassipes* on blossoming *Pycnanthemum flexuosum*. The female was feeding on an *Apis mellifera* worker.

The specimens cited herein will be deposited in the collection of the Section of Faunistic Surveys and Insect Identification of the Illinois Natural History Survey, at Urbana, Illinois.

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paper.—JOHN K. BOUSEMAN, *Agricultural Entomology, Illinois Agricultural Experiment Station, and Section of Economic Entomology, Illinois Natural History Survey, Urbana, Illinois, 61801.*

Use of Cantharidin and Meloid Beetles to Attract Anthicidae (Coleoptera).—Cantharidin and dead meloid beetles have been known to attract various groups of anthicids, particularly *Notoxus*, for some time. Abdullah (1964, *Ann. & Mag. Nat. Hist.* 7: 247–254) presented a list of European and African Anthicids which were known to be drawn to either attractant. Groups represented were *Anthicus*, *Formicomus*, *Notoxus* and *Pedilus* (Pedilidae, North America). Werner's (1964, *Misc. Publ. Entomol. Soc. Amer.* 4: 193–242) collection of two species of *Anthicus* and a *Notoxus* at drying meloids were the first such records for the New World. J. C. van Hille (1954, *South African Jour. Sci.* 51: 154–5) reported that he had collected several species of Anthicidae, which he would not have collected otherwise, through use of cantharidin bait. The potential use of either cantharidin or freshly killed meloid baits apparently has not been explored any further. During the month of July in 1974 and late June and July in 1975, I had the opportunity of using both of these in Mexico. Most collections were made in the higher areas of central and southern Mexico, particularly in the states of Puebla and Oaxaca.

The cantharidin "trap" was made by placing a very small pinch of catharidin powder on top of filter paper in the bottom of a petri dish. Acetone was added to the cantharidin until it dissolved. When the filter paper was allowed to dry in the dish, the cantharidin recrystallized in the paper. In the field the dish was left uncovered in a shaded area while other collecting techniques were tried. The meloid "trap" consisted of an insect box with various species of freshly killed, pinned meloids. The insect box was placed with the top ajar in a shaded area when in use. Meloids were frequently encountered in the field and no problem was presented in maintaining a fresh supply. Loss of attraction was not apparent during the month of collecting each year. Both traps were often left out for about three hours, usually in the morning or late afternoon, checked hourly and emptied at that time.

When present in either trap, the anthicids were often quiescent and when disturbed would letismulate or move around quickly without leaving. In two instances the cantharidin attracted a *Notoxus* species which did not appear at the meloid bait. Anthicids collected in the cantharidin trap were: *Notoxus constrictus* Casey, *N. calcaratus* Horn, *N. hirsutus* Champion, *N. mexicanus* Champion, *N. monodon* LaFerte, *N. talpa* LaFerte, five undescribed species of *Notoxus*, *Mecynotarsus balsasensis* Werner, *Acanthinus scitulus* (LeConte) and *Vacusus infernus* (LaFerte). Anthicids collected in the meloid trap were: *Notoxus constrictus* Casey, *N. calcaratus* Horn, *N. marginatus* LeConte, *N. mexicanus* Champion, *N. murinipennis* LeConte, four undescribed species of *Notoxus* and several *Tomoderus* species. Both the *Acanthinus* and *Vacusus* records were for single specimens attracted in an area where they were very common. Along with Werner's records, which were for *Notoxus nuperus* Horn, *Anthicus nanus* LeConte and *A. lutulentus* Casey, a total of fifteen North American *Notoxus* species were collected with these baits. Insects other than anthicids collected